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FROM-Merchant & Gould

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T-178 P.002/004

PATENT SOUL

S/N 09/380,447

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

SIDHU ET AL.

Examiner:

MY-CHAU T. TRAN

Serial No.:

09/380,447

Group Art Unit:

1639

Filed:

SEPTEMBER 1, 1999

Docket No.:

11669.141USWQ

Confirmation No.:

2633

Customer No.:

23552

Title:

TRANSFORMATION EFFICIENCY IN PHAGE DISPLAY THROUGH MODIFICATION OF A COAT PROTEIN

CERTIFICATE UNDER 37 CFR 1.6(d):

I hereby certify that this paper is being transmitted by facsimile to the U.S. Paterpand Trademark Office on July 17, 2003.

By:

Name: Shear A. Boerboom

RESPONSE TO SUPPLEMENTAL RESTRICTION REQUIREMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicants have received and reviewed a supplemental Restriction Requirement. In the supplemental Restriction Requirement, the Examiner required a further election of a single species of virus, and election of a specific amino acid substitution at each position. The Examiner further contends that election of an antibody or fragment of antibody is not a single species election for the species of the heterologous protein. Applicants respectfully traverse the restriction requirement and this further election of species requirement.

Applicants traverse the restriction requirement. Applicants' submit that this patent application is a national stage application of a PCT and, therefore, is governed by the PCT Unity of Invention Standard and rules of the PCT. Applicants submit the Examiner must follow Rule 13.1 and Rule 13.2 in determining Unity of Invention for a national stage application in accord with Caterpillar Tractor Co. v. Commissioner of Patent and Trademarks, 231 USPQ 590 (E.D.Va. 1986) and MPEP § 1850. Applicants submit that the Examiner has failed to do so and has ignored the Unity of Invention established in the International Preliminary Examination report.



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Secondly, Applicants traverse the additional election of species requirement. Applicants submit that the Examiner did not require election of a single species of virus, election of a single amino acid substitution at each position and election of single species of heterologous peptide. The previous restriction requirement indicated an election of species for a single type of virus (phage), a single amino residue and its position; and a single type of heterologous polypeptide. Applicants submit they have elected the species as required by the Examiner. They have elected gp VIII major coat protein of a phage; identified a single amino acid residue and its position position 17 serine substituted with isoleucine in p VIII, and identified a type of heterologous protein- an antibody or fragment thereof. Applicants submit this election of species was in compliance with the Examiner's election of species requirement and that it would not be unduly burdensome for the Examiner to search based on the previously elected species.

Although Applicants do not concede the propriety of the Restriction Requirement or election of species, Applicants hereby elect additional species as requested by the Examiner. Applicants elect M13 filamentous phage. Applicants would like to switch the election of the heterologous protein from an antibody or fragment thereof, to human growth hormone. For each amino acid position, Applicants elect the following amino acid substitutions:

- at position 1: D K
- at position 2: S
- at position 3:
- at position 4: E
- at position 5: K
- F at position 6:
- S at position 7:
- at position 8:
- at position 9: D
- at position 11: Y
- at position 12: E
- at position 13: A
- at position 14: L
- at position 15: E
- at position 16: D
- at position 17: I
- at position 18: I
- at position 19: T
- at position 20: N
- at position 21: L
- at position 22: F
- at position 23: F



at position 24: L
at position 25: L
at position 26: G
at position 27: T
at position 28: V
at position 29: Y
at position 30: V

SUMMARY

Applicants submit that the claims are in condition for allowance and notification to that effect is earnestly solicited. The Examiner is invited to contact Applicants' representative if prosecution may be assisted thereby.

Respectfully submitted,

MERCHANT & GOULD P.C. P.O. Box 2903 Minneapolis, Minnesota 55402-0903 (612) 332-5300

Date: July 17, 200 3

Katherine M. Kowalchyk

Reg. No. 36,848

KMK:sab

T-178 P.001/004 F-433

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July 17, 2003

TO:

Commissioner for Patents

Attn: Examiner My-Chau T. Tran

Patent Examining Corps

Facsimile Center

Washington, D.C. 20231

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If you do NOT receive all of the pages, please telephone us at 612.371.5204, or fax us at 612.332.9081.

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Applicant:

SIDHUET AL.

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July 17, 2003

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